

Assembly California Legislature



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Lisa Williams, Staff Lead
California Air Resources Board
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Re: Comments on California's Draft Beneficiary Mitigation Plan

Dear Mr. Christensen and Ms. Williams:

Thank you for the opportunity to provide written comments on behalf of the 5th Assembly District to the California Air Resources Board (CARB) regarding California's draft Beneficiary Mitigation Plan.

I have represented the Fifth Assembly District since 2012. This nine-county, rural District in central eastern California is one of the State's most-productive areas across a wide array of economic sectors; including agriculture, tourism, and recreational activities such as camping, hunting and fishing. I understand and support California's need to transition to clean transportation technologies; however, my District is unique when it comes to the types of motor vehicles that can meet the needs of public and private fleets. This is due, in part, to our mountainous terrain. Notably, propane has proven to be a clean-burning alternative transportation fuel that works well in rural counties. As described below, propane has emerged as an exceptionally low-emitting alternative fuel for key medium-duty vehicle types in my District - including both on- and off-road applications.

I am therefore urging CARB to allow low-emission propane vehicles to be eligible for Volkswagen (VW) settlement funding allocations within medium-heavy-duty applications that include transit, school, and shuttle bus categories. I would like to recommend that CARB keeps the focus on which fuel-technology platforms can best achieve the targeted NOx reductions in the most-cost effective manner. Specifically, I ask you to please consider what works the best for fleets operating in the State's more-rural regions.

According to the Propane Education and Research Council (PERC), there are nearly 200,000 propane-powered vehicles already being operated on U.S. roads. In my District, propane has long been an important alternative fuel for fleets, and it provides key attributes that make AFVs work well in rural areas. Now, there is an exciting new development regarding the air quality benefits of propane vehicles. Unlike comparable diesel and gasoline engines, commercially available medium-duty propane engines have recently been certified to California's "Optional Low-NOx Standard." As you know,

natural gas engines are the only other transportation alternative engine technology that has achieved such very low emission levels. In addition, efforts are underway by the propane industry to introduce low-carbon-intensity biopropane to gradually replace conventional propane used in transportation applications.

The outcome is that very-low-NOx propane engines can power a wide array of medium-duty on-road applications. These include school, transit and shuttle buses operated in rural parts of the State, which often do not have access to natural gas pipelines. In my District, these applications often cannot use battery electric technologies due to the challenging terrain and long distances between destinations.

This new propane engine technology delivers NOx reductions that are very cost-effective. Importantly, a wide array of medium-duty vehicle types can use it. For example, school bus fleets can now be powered by very clean engine technology that is proven to work well in rural areas. Cash-strapped school districts can build propane fueling stations at relatively low capital cost. In particular, smaller schools, often located in low-income or rural communities, are provided with greater fuel flexibility by purchasing low-cost propane buses and fueling stations. These stations additionally offer low operational costs, while providing ease of scalability if expansion is needed in the future.

The net result is that emerging propane vehicle technology offers unique commercial “reach” into the rural counties of my District. It will meet the needs of fleet operators, while improving air quality by displacing older conventionally fueled vehicles. This is proven technology: across the U.S., more than 15,000 propane-powered school buses transport 900,000 students safely every day. In California, nearly 1,300 propane-powered buses are on the road today.

This is not to say that there isn't an important place for medium-heavy-duty vehicles powered battery-electric systems. Rather, we need to maximize deployment of all viable very-low-emission fuel-technologies in the State. This new propane technology should be embraced and supported to the maximum extent possible through allocation of VW settlement funds. Expanding deployments of low-emission propane school buses in rural areas that cannot necessarily utilize other alternative-fuel platforms is good public policy.

In sum, in support of my constituents in the Fifth Assembly District – along with the Western Propane Gas Association (WPGA) and its membership of approximately 200 companies – I urge CARB to allow VW settlement funds to be allocated to low-emission propane platforms used in medium-heavy-duty applications such as school, transit and shuttle buses. Please see Attachment 1 for additional information about the benefits of low-emission propane technology.

Sincerely,



Assemblyman Frank Bigelow
5th Assembly District



Attachment 1:

Importance of Including Propane Vehicles in California's Volkswagen Settlement

Background: From 2009 to 2015, German automaker Volkswagen (VW) programmed certain vehicles to deliberately cheat laboratory emissions testing, resulting in approximately 590,000 cars in the United States emitting NO_x up to 40 times greater than the U.S. standards allow¹. In October 2016, a judge approved a partial settlement between the Justice Department and Volkswagen, resulting in VW setting up a \$2.7 billion environmental mitigation trust fund to offset the excess emissions from the affected VW vehicles. California is eligible to receive \$381,280,175, some of which can be effectively spent on clean-burning propane vehicles².

Propane has a proven track record as a transportation fuel in fleets across the country. Right now, the Propane Education and Research Council (PERC) estimates that there are nearly 200,000 propane-powered vehicles on the road in the U.S. The popularity of propane as an alternative fuel has led to its growing adoption in California, particularly by fleets. Both public and private sector organizations have found success in adopting propane vehicles into the fleets of various sizes. These include light duty, medium duty, and school bus applications. Some of the advantages for fleets to switch to propane autogas-fueled vehicles include (1) lower total-cost-of-ownership (2) comparable performance to conventional fuels (3) onsite fueling (4) reduced maintenance (5) lower emissions and (6) no conventional fuel particulate matter toxics.

One of the most successful adoptions of propane vehicles has been school bus fleets. Across the U.S. more than 15,000 propane-powered school buses transport 900,000 students safely every day. In California, **1,284 propane-powered buses** are already on the road, serving the community. It is important to highlight that as part of the VW Settlement, propane school buses are eligible for **100 percent** of the replacement costs. This makes their adoption using these funds very attractive to school districts in California.

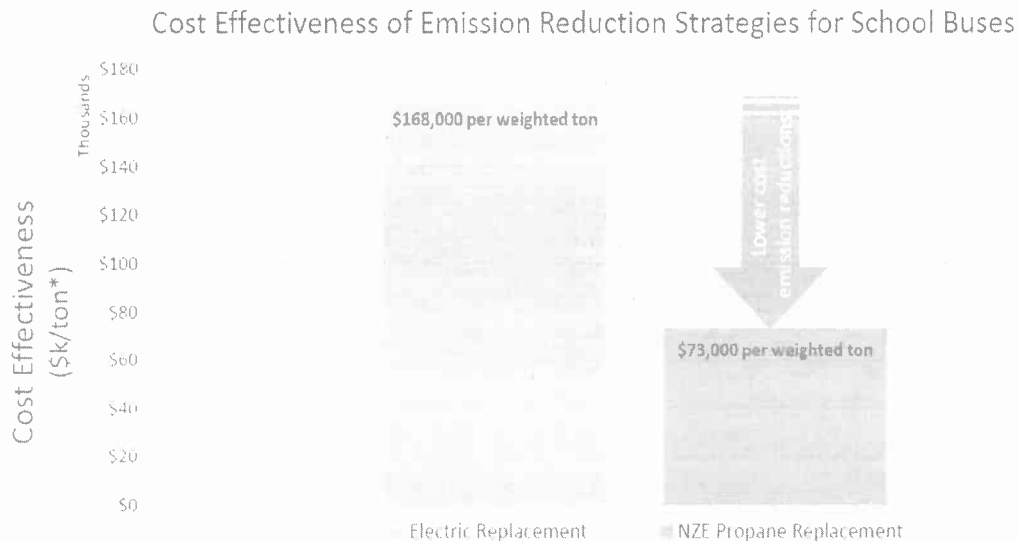
The variety of manufactures serving the California market allows fleet managers to select the option that best fits their need. Also, propane technology is constantly improving. While the industry already offers a .05 low NO_x engine, CARB is currently reviewing certification to deploy an ultra-low, .02 low NO_x school bus in the summer of 2018. Renewable propane is also expected to be available in State in 2018.

Bang for the Buck: Despite best intentions, funding in general is limited for alternative fuels so it is important to look at the impact for every dollar spent. When considering the use of the VW settlement dollars, it is important to highlight potential NO_x reductions. This is where propane-powered school buses are a winning choice for California.

¹ <https://www.epa.gov/vw/frequent-questions-about-volkswagen-violations#health>

Already in California, there are 22 school districts that have buses running on clean burning propane. Students on these buses are experiencing these clean air benefits. There is also the added advantage that propane buses are quieter than their conventional fuel counterparts.

Rural districts choose propane over electric school buses because of the engine's ability to handle long routes and navigate steep inclines. Propane buses also deliver a greater advantage of dollar per ton of emission reduction benefits versus electric, as highlighted in the chart below:



*Annualized capital costs per combined ton (NO_x, PM, NMOC). Based on ARB EMFAC 2014 emissions rates for California diesel school buses

The Ask: When factoring in all of the benefits, there is no doubt that investing Volkswagen Settlement funds into propane powered school buses would be one of the most cost-effective ways of reducing the excess NO_x caused by Volkswagen. The Volkswagen Settlement presents a unique opportunity for our State to accelerate the adoption of environmentally-friendly alternative fueled vehicles, including propane. We ask for your support while our industry engages the California Air Resources Board to utilize the VW Settlement monies for school buses, transit buses, shuttle buses, medium duty trucks, and other applications powered by propane.